

What is claimed is:

1. A ring body and supporting structure of vibratile gyroscope, comprising:

5 a base;

a sheet ring body, which is arranged in said base and has an axial height;

a supporting structure, which is arranged between said base and the ring body and is provided for supporting the ring body; and

10 plural electrodes, which are arranged at inner side and/or outer side of said ring body for sensing the deformation of the ring body and driving the ring body;

it is characterized that the supporting structure is arranged at axial sides of the ring body and connect ring body and base for providing axial and radial supporting capabilities.

15 2. The ring body and supporting structure of vibratile gyroscope according to claim 1, wherein the supporting structure is arranged symmetrically and axially at two side edges of the ring body.

20 3. The ring body and supporting structure of vibratile gyroscope according to claim 1, wherein the supporting structure is constructed as ring shape and has inner radius and outer radius that are substantially same as those of the ring body, and plural connecting parts are respectively arranged between the supporting structure and the ring body and also between the supporting structure and the base;

25 connecting parts arranged between the supporting structure and the ring body provides an integral connection for both supporting structure and ring body and connecting parts arranged between the supporting structure and the ring body provides another integral connection for both supporting structure and ring body, such that a function for supporting and positioning the ring body is achieved.

30 4. The ring body and supporting structure of vibratile gyroscope according to claim 3, wherein the supporting structure is configured as

ring-shaped contour that is comprised of plural surrounding arc bodies having the same radius.

5 5. The ring body and supporting structure of vibratile gyroscope according to claim 4, wherein the supporting structure is comprised of eight sections of surrounding arc bodies having the same radius, and the eight sections of supporting structure are arranged at axial edge of the ring body by equivalent angles, and equal spacing distance is arranged between each section of supporting structure, and there is connecting part arranged between the bottom side of each supporting structure and the ring body, and
10 there is also connecting part arranged between the top side of each supporting structure and the base.

15 6. The ring body and supporting structure of vibratile gyroscope according to claim 3, wherein the supporting structure is a continuous ring-shaped body, and there are connecting parts arranged between the bottom of supporting structure and the ring body by equivalent angles, and there are also connecting parts arranged between the top of the supporting structure and the base by equivalent angles, and the said connecting parts arranged at the bottom side and the top side of the supporting structure are intercrossed.

20 7. The ring body and supporting structure of vibratile gyroscope according to claim 1, wherein there are reinforcing structures arranged at the inner side and/or outer side of the ring body.

25 8. The ring body and supporting structure of vibratile gyroscope according to claim 7, wherein the reinforcing structure is radially projected out the surface of the ring body, and the reinforcing structure is arranged plural recessing parts.

30 9. The ring body and supporting structure of vibratile gyroscope according to claim 8, wherein the recessing parts are shown as openings gradually divergent outward in side radial direction of the ring body, and the recessing parts are distributed to the reinforcing structure in eight equivalent angles.

10. The ring body and supporting structure of vibratile gyroscope according to claim 7, wherein the reinforcing structures are as high as the

ring body and are able to cover the inner side wall and/or outer side wall of the ring body.

11. A ring body and supporting structure of vibratile gyroscope, and the vibratile ring-shaped gyroscope is arranged in a base, and the ring body is a sheet-typed ring body having an axial height, and the supporting structure is a ring structure having substantially same inner radius and outer radius as those of the ring body, and a supporting structure is respectively, axially, and symmetrically arranged at two sides of the ring body, and plural connecting parts are arranged between the supporting structure and the ring body.

12. The ring body and supporting structure of vibratile gyroscope according to claim 11, wherein the supporting structure is configured as ring-shaped contour that is comprised of plural surrounding arc bodies having the same radius.

13. The ring body and supporting structure of vibratile gyroscope according to claim 12, wherein the supporting structure is comprised of eight sections of surrounding arc bodies having the same radius, and the eight sections of supporting structure are arranged at axial edge of the ring body by equivalent angles, and equal spacing distance is arranged between each section of supporting structure, and there is connecting part arranged between the bottom side of each supporting structure and the ring body, and there is also connecting part arranged between the top side of each supporting structure and the base.

14. The ring body and supporting structure of vibratile gyroscope according to claim 11, wherein the supporting structure is a continuous ring-shaped body, and there are connecting parts arranged between the bottom of supporting structure and the ring body by equivalent angles, and there are also connecting parts arranged between the top of the supporting structure and the base by equivalent angles, and the said connecting parts arranged at the bottom side and the top side of the supporting structure are intercrossed.

15. The ring body and supporting structure of vibratile gyroscope according to claim 11, wherein there are reinforcing structures arranged at the inner side and/or outer side of the ring body.

16. The ring body and supporting structure of vibratile gyroscope according to claim 15, wherein the reinforcing structure is radially projected out the surface of the ring body, and the reinforcing structure is arranged plural recessing parts.

5 17. The ring body and supporting structure of vibratile gyroscope according to claim 16, wherein the recessing parts are shown as openings gradually divergent outward in side radial direction of the ring body, and the recessing parts are distributed to the reinforcing structure in eight equivalent angles.

10 18. The ring body and supporting structure of vibratile gyroscope according to claim 15, wherein the reinforcing structure is as high as the ring body and is able to cover the inner side wall and/or outer side wall of the ring body.

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